

Application No. 09/815,529

Docket No. 22-0119

Amendments to the Claims

1 (Currently Amended): In a satellite communication system comprising a satellite arranged to receive data carried by an uplink signal having a received power, a network control center and a transmitter arranged to transmit said uplink signal at a transmit power, an uplink power control method comprising:

comparing in the satellite the received power of at least a portion of said uplink signal with a power threshold;

adjusting the transmit power at least in part in response to said comparing;

determining errors in said data received at the satellite; and

transmitting an error report to the network control center;

determining a threshold adjustment in the network control center;

transmitting a threshold adjustment report to the satellite; and

adjusting said power threshold in response to said determined errors.

2 (Cancelled)

3. (Currently Amended): In a satellite communication system comprising a satellite arranged to receive data of a first type and a second type carried by an uplink signal having a received power, a network control center and a transmitter arranged to transmit said uplink signal at a transmit power formed by a reference power combined with an offset power, an uplink power control method comprising:

comparing in the satellite the received power of at least a portion of said uplink signal with a power threshold;

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adjusting the offset power of said transmit power at least in part in response to said comparing;

determining errors in said first and second types of data received at the satellite;

transmitting an error report to the network control center;

determining in the network control center threshold adjustments for the first and second types of data;

transmitting a threshold adjustment report and an offset adjustment report to the satellite;

adjusting said power threshold in response to said determined errors; and

adjusting the offset power of said transmit power to a first value in response to determined errors in said first type of data and adjusting said offset power to a second value in response to determined errors in said second type of data.

4 (Original): A method, as claimed in claim 3, wherein said adjusting said offset power comprises addressing a look up table.

5 (Original): A method, as claimed in claim 1, wherein said determining errors comprises:

determining error counts of said errors;

determining an average error rate in response to said error counts; and

adjusting said power threshold in response to said average error rate.

6 (Currently Amended): A method, as claimed in claim 5, wherein said uplink signal comprises ~~transmit~~ of a plurality of data signals and wherein determining an average error rate comprises:

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determining a total number of errors by summing said error counts for said plurality of data signals; and

dividing the total number of errors by the number of data signals in said plurality of data signals.

7 (Currently Amended): A method, as claimed in claim 1, wherein ~~said transmit of~~ said uplink signal comprises ~~transmit of~~ a synchronization signal and ~~transmit of~~ a data signal carrying said data and wherein said comparison is made using said synchronization signal.

8-10 (Cancelled).

11 (Currently Amended): Uplink power control apparatus for use in a satellite communication system of the type where a satellite receives first and second types of data carried by an uplink signal having a received power, comprising:

a transmitter arranged to transmit said uplink signal at a transmit power comprising a reference power combined with an offset power; and

a network control center

a first processor located on the satellite and arranged to make a comparison of the received power of at least a portion of said uplink signal with a power threshold, to determine errors in said data and to transmit an error report to the network control center;

a second processor located in the network control center, for determining threshold adjustments and offset adjustments for the first and second types of data, and for transmitting the threshold adjustments to the satellite and the offset adjustments to

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the transmitter, through the satellite; and

a third processor located in the transmitter, for adjusting the offset power of the transmitter in response to offset adjustments received from the network control center and for adjusting the reference power of the transmitter in response to adjustment signals received from the satellite. ~~threshold, adjust the offset power to a first value in response to said first type of data and to adjust said offset power to a second value in response to said second type of data, determine errors in said data and adjust said power threshold in response to said determined errors. and wherein said one or more processors are arranged to adjust said.~~

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12 (Currently Amended) Apparatus, as claimed in claim 11, wherein said third processor is arranged to adjust said offset power by addressing a look up table.

13 (Cancelled)

14 (Currently Amended): Apparatus, as claimed in claim 11, 8, wherein said first processor is arranged to:

determine error counts of said errors;

determine an average error rate in response to said error counts; and

adjust said power threshold in response to threshold adjustment signals received from the network control center based on said average error rate.

15 (Currently Amended): Apparatus, as claimed in claim 14, wherein said uplink signal comprises a plurality of data signals and wherein said first processor is arranged to:

determine a total number of errors by summing said error counts for said plurality of data signals; and

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divide the total number of errors by the number of data signals in said plurality of data signals.

AI 16 (Currently Amended): Apparatus, as claimed in claim 11, 8, wherein said transmitter is arranged to transmit a synchronization signal and to transmit a data signal carrying said data and wherein said comparison with a threshold in the first processor is made using said synchronization signal.
